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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/620,914	07/16/2003	Christoph Benning	MSU-07769	8436

7590 02/02/2006
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EXAMINER

COLLINS, CYNTHIA E

ART UNIT PAPER NUMBER

1638

DATE MAILED: 02/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/620,914

Applicant(s)

BENNING ET AL.

Examiner

Cynthia Collins

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on July 16, 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-30 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-2, 5-12, 15-24 and 26-29, drawn to a composition comprising a purified DNA having a sequence of SEQ ID NO:44 or encoding a protein having a sequence of SEQ ID NO:45, an RNA, a vector, a host cell, and transgenic plants, classified in class 536, subclass 23.6, for example.
- II. Claims 1-2, 5-12, 15-24 and 26-29, drawn to a composition comprising a purified DNA having a sequence of SEQ ID NO:49 or encoding a protein having a sequence of SEQ ID NO:50, an RNA, a vector, a host cell, and transgenic plants, classified in class 536, subclass 23.7, for example.
- III. Claims 3, 13, 25 and 30, drawn to a protein produced from the RNA transcribed from a purified DNA having a sequence of SEQ ID NO:44 or encoding a protein having a sequence of SEQ ID NO:45, classified in class 530, subclass 370, for example.
- IV. Claims 3, 13, 25 and 30, drawn to a protein produced from the RNA transcribed from a purified DNA having a sequence of SEQ ID NO:49 or encoding a protein having a sequence of SEQ ID NO:50, classified in class 530, subclass 371, for example.
- V. Claims 4 and 14, drawn to antibodies produced from the protein produced from the RNA transcribed from a purified DNA having a sequence of SEQ ID NO:44

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or encoding a protein having a sequence of SEQ ID NO:45, classified in class 530, subclass 387.1, for example.

- VI. Claims 4 and 14, drawn to antibodies produced from the protein produced from the RNA transcribed from a purified DNA having a sequence of SEQ ID NO:49 or encoding a protein having a sequence of SEQ ID NO:50, classified in class 530, subclass 387.1, for example.

Applicants are reminded that nucleotide sequences encoding different proteins, and the amino acid sequences they encode, are structurally distinct chemical compounds and are unrelated to one another. These sequences are thus deemed to normally constitute **independent and distinct** inventions within the meaning of 35 U.S.C. 121. Absent evidence to the contrary, each such nucleotide and amino acid sequence is presumed to represent an independent and distinct invention, subject to a restriction requirement pursuant to 35 U.S.C. 121 and 37 CFR 1.141 et seq. This requirement is not to be construed as a requirement for an election of species, since each nucleotide and amino acid sequence is not a member of a single genus of invention, but constitutes an independent and patentably distinct invention.

The inventions are distinct, each from the other because of the following reasons:

Invention I and inventions II-VI are distinct inventions. The purified DNA, RNA, vector, host cell and transgenic plants of invention I differ in structure from the purified DNA, RNA, vector, host cell and transgenic plants of invention II. The purified DNA, RNA, vector, host

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cell and transgenic plants of invention I differ in structure and function from the proteins of inventions III-IV and the antibodies of inventions V-VI.

Invention II and inventions III-VI are distinct inventions. The purified DNA, RNA, vector, host cell and transgenic plants of invention II differ in structure and function from the proteins of inventions III-IV and the antibodies of inventions V-VI.

The protein of invention III differs in amino acid sequence from the protein of invention IV, and differs in amino acid sequence and function from the antibodies of inventions V-VI.

Invention III and inventions IV-VI are distinct inventions. The protein of invention III differs in amino acid sequence from the protein of invention IV, and differs in amino acid sequence and function from the antibodies of inventions V-VI.

Invention IV and inventions V-VI are distinct inventions. The protein of invention IV differs in amino acid sequence and function from the antibodies of inventions V-VI.

Invention V and invention VI are distinct inventions. The antibodies of invention V recognize a protein having a different amino acid sequence from the protein recognized by the antibodies of invention VI.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, their recognized divergent subject matter, and the requirement for different areas of search, restriction for examination purposes as indicated is proper.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

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Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cynthia Collins whose telephone number is (571) 272-0794. The examiner can normally be reached on Monday-Friday 8:45 AM -5:15 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anne Marie Grunberg can be reached on (571) 272-0975. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Cynthia Collins
Primary Examiner
Art Unit 1638

CC


1/24/06